

## **ABSTRACT**

1   **[0050]**     A reflector structure in a liquid crystal display having light condensing effect  
2   comprises mainly an active device substrate, a condenser having diffraction or refraction  
3   effect being formed above the substrate, a spacing layer being formed above and covering  
4   the condenser, and a reflective unit being formed above the spacing layer. The condenser  
5   can be a holographic diffraction unit, micro prisms or micro lens unit. It can be on a TFT  
6   substrate or a color filter. The color filter can be located at the same or opposite side with  
7   the TFT substrate. The spacing layer may be an over coat layer, a color filter, a color  
8   filter and an over coat layer on the color filter, or a substrate. The reflective unit also has  
9   various structures, reflective angles, and reflective effects. The invention utilizes the  
10  condenser to collect light. 60% to 95% of unused backlight is collected. The backlight  
11  gain is over 120% to 400%, thereby greatly saving the power consumption for the  
12  backlight source.